

CLAIMS

What is claimed is:

1. A high pressure fluid jetting system comprising:  
a fluid cylinder pump;  
a pressure assembly within said fluid cylinder pump, said pressure  
assembly comprising an outer pressure member and an inner  
pressure member having an angled interference surface  
therebetween; and  
a plunger reciprocally movable within said pressure assembly.
2. The system as recited in claim 1, wherein said fluid cylinder pump operates at  
approximately 50,000 pounds per square inch of pressure.

3. A pressure assembly for a high pressure fluid jetting system comprising:  
an outer pressure sleeve; and  
an inner pressure sleeve, said outer pressure sleeve and said inner pressure sleeve having an angled interference surface therebetween.
4. The assembly as recited in claim 3, wherein said inner pressure sleeve is pressed into said outer pressure sleeve during assembly of the high pressure fluid jetting system.

5. A valve seat assembly for a high pressure fluid jetting system comprising:  
an outer valve seat; and  
an inner valve seat, said outer valve seat and said inner valve seat having  
an angled interference surface therebetween.
6. The assembly as recited in claim 5, wherein said angled interference surface is  
angled at a relatively small angle.
7. The assembly as recited in claim 5, wherein said inner valve seat is maintained in  
compression by said outer valve seat.

8. A seal cartridge assembly for a high pressure fluid jetting system comprising:  
an outer seal cartridge;  
an inner seal cartridge, said inner seal cartridge and said outer seal cartridge having an angled interference surface therebetween; and  
a packing assembly within said inner seal cartridge.
9. The assembly as recited in claim 8, wherein said inner seal cartridge is maintained in compression by said outer seal cartridge.
10. The assembly as recited in claim 8, wherein at least one corner of said inner seal cartridge includes a radius.
11. The assembly as recited in claim 8, wherein at least one corner of said outer seal cartridge includes a radius.
12. The assembly as recited in claim 8, wherein said outer seal cartridge heated prior to assembly to said inner seal cartridge.
13. The assembly as recited in claim 8, wherein said packing assembly includes a multiple of non-metallic packings.
14. The assembly as recited in claim 13, wherein each of said non-metallic packings are ring-like members.
15. The assembly as recited in claim 13, wherein each of said non-metallic packings are substantially square in cross section.

16. The assembly as recited in claim 8, wherein said packing assembly includes an inner diameter wedge ring adjacent an outer diameter wedge ring.

17. A packing assembly for a high pressure fluid jetting system comprising:  
multiple of non-metallic packings;  
an inner diameter wedge ring; and  
an outer diameter wedge ring.
18. The assembly as recited in claim 17, wherein said packing assembly includes  
a multiple of non-metallic packings.
19. The assembly as recited in claim 17, wherein each of said non-metallic  
packings are ring-like members.
20. The assembly as recited in claim 17, wherein each of said non-metallic  
packings are substantially square in cross section.